

**CLAIMS**

1-10. (Canceled)

11. (Previously Presented) A method for debugging a first computer program, the first computer program executable on a first processor in a computer system, wherein the first processor is a specialized function processing unit (SPU), the method comprising:

activating a debugging program on a main processing unit (MPU) of the computer system, the MPU inoperable to access registers of the SPU directly;

allocating, by the debugging program, a portion of a main memory of the computer system to store received SPU register contents;

verifying, by the debugging program, that the first computer program is halted;

activating, on the SPU, a second computer program;

transferring, by the second computer program, SPU register contents to the allocated portion of the main memory;

accessing, by the debugging program, the SPU register contents from the main memory;

subsequent to accessing the SPU register contents, inspecting the SPU register contents for errors;

modifying, by the debugging program, the SPU register contents in the main memory, in response to inspecting the SPU register contents;

transferring, by the second computer program, SPU register contents from the main memory to registers of the SPU; and

restarting, by the debugging program, the SPU.

12. (Previously Presented) The method of Claim 11, further comprising transferring, by the second computer program, SPU state information to the MPU.

13. (Previously Presented) The method of Claim 12, further comprising:  
allocating, by the second computer program, a portion of a local store of the SPU;  
copying, by the second computer program, SPU register contents to the allocated portion of the SPU local store; and

wherein transferring, by the second computer program, SPU register contents to the allocated portion of the main memory, comprises copying the SPU register contents from the allocated portion of the SPU local store to the allocated portion of the main memory.

14. (Previously Presented) The method of Claim 13, wherein transferring, by the second computer program, SPU register contents from the main memory to registers of the SPU, further comprises:

copying the SPU register contents from the allocated portion of the main memory to the allocated portion of the SPU local store; and

loading the SPU register contents from the allocated portion of the SPU local store to the SPU registers.

15-20. (Canceled)